

Amendments to the Claims

Please amend claims as follows:

1-7. (Cancelled)

8. (Original) A polymerization method comprising reacting a geminally disubstituted olefin feed, a carbon monoxide feed and an ethylene feed under free radical polymerization conditions to form a geminally disubstituted olefin-carbon monoxide-ethylene polymer.

9. (Original) The method of claim 8 wherein the polymerization conditions range in temperature from about 50°C to about 300°C and range in pressure from about 500 psig to about 30,000 psig.

10. (Original) The method of claim 8 wherein the polymerization is conducted in the presence of a solvent.

11. (Original) The method of claim 8 wherein the polymerization is conducted in the presence of a free radical initiator.

12. (Original) The method of claim 11 wherein said free radical initiator is selected from one of organic peroxides and azo compounds.

13. (Original) The method of claim 8 wherein said polymer comprises a polymer having a number average molecular weight of from about 200 to about 150,000.

14. (Original) The method of claim 8 wherein said geminally disubstituted olefin comprises isobutylene.

15. (Original) The method of claim 8 wherein said polymer comprises 1-40 mole % of said geminally disubstituted olefin, 3-40 mole % of said carbon monoxide, and 5-80 mole % of said ethylene.

16. (Original) The polymerization method of claim 8 further comprising reacting a feed containing monomer X with said geminally disubstituted olefin feed, said carbon monoxide feed and said ethylene feed under free radical polymerization conditions to form a geminally disubstituted olefin-carbon monoxide-ethylene-X polymer, wherein said monomer X comprises a free radical polymerizable monomer or mixtures of monomers.

17. (Original) The method of claim 16 wherein said monomer X is selected from the group consisting of C₃ to C₃₀ alpha-olefins, C₃ to C₃₀ internal olefins, styrene, styrene derivatives, unsaturated mono- and dicarboxylic acids of 3-20 carbon atoms, esters of such unsaturated mono- and dicarboxylic acids, vinyl esters of saturated carboxylic acids wherein the acid group has 1-18 carbon atoms, vinyl alkyl ethers wherein the alkyl group has 1-18 carbon atoms, halogenated ethylene derivatives, methyl vinyl ketone, 1-vinylpyrrolidone, acrylonitrile, acrylamide, acrolein, allyl alcohol, allyl chloride, allyl acetate, and mixtures thereof.

18. (Currently Amended) The method of claim 16 wherein said mixtures of monomer X ~~are selected from one of raffinate I and raffinate II~~ comprise about:

34 wt% 1-Butene

20 wt% 2-Butenes

25 wt% Isobutylene

17 wt% Butanes

0.5 wt% Butadiene.

19-20 (Cancelled)

21. (New) The method of claim 16 wherein said mixtures of monomer X comprise about:

45 wt% 1-Butene

25 wt% 2-Butenes

4 wt% Isobutylene

21 wt% Butanes

0.3 wt% Butadiene.